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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,709	09/29/2003	Howard W. Fleegeer	HFD 001A	6321

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EXAMINER

SALDANO, LISA M

ART UNIT PAPER NUMBER

3673

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/675,709

**Applicant(s)**FLEEGER, HOWARD W. **Examiner**

Lisa M. Saldano

**Art Unit**

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 8/20/2204.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 29-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 29-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11, 17-22, 29-31, 34-41, 42-44, 47 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Morgan et al (4,015,629).

Regarding claims 1-6, 7, 17-22, 29-31, 34-41, 42-44, 47 and 48 Morgan et al disclose an adjustable flow floating weir assembly with buoyancy means including floats 42 and air pressure in regions 41 (see Figs.1&2). Air is a gas. The assembly comprises weir openings including openings 28 and notches 22 for fluid flow to a vessel such that at least a portion of the weir openings are submerged. The weir openings are vertically adjustable such that the submerged portion of the weir opening is controllable through vertical adjustment of portions of the assembly (see column 1, lines 60-69). Pipes 32 communicate to an exit opening to a fluid outlet (see column 3). The system does not operate on a bottle-neck principle. The rate of flow of fluid through the vessel is limited by the rate of flow of the fluid into the fluid inlet through the weir opening (see column 1, line 68- column 2, line 28). The combination of buoyancy means through the floats and buoyancy regions inherently provide a buoyancy of at least three time the weight

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of the system because air can continuously be supplied to the buoyancy regions. Specifically regarding claim 17, Morgan et al disclose the system comprising a weir opening comprising opening 28 and generally V-shaped notches 22 such that the V-shaped notches permit adjustment of the overall weir opening based on the vertical position of the assembly (see column 3, lines 20-31).

Regarding claims 8 and 9, Morgan et al disclose means for maintaining through means for compensating misalignment of the pipes of the assembly (see column 4, lines 19-25).

Regarding claims 10 and 11, Morgan et al disclose that the rate of flow of fluid into the inlet is independent of the level of fluid in the vessel when the assembly is floated and ballast can be controlled and adjusted (see column 4).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 22 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al as applied to claims 1, 17 and 36 above, and further in view of Bauer (4,094,338).

Morgan et al disclose the features as described above.

However, Morgan et al fail to explicitly disclose that the buoyancy means include a polymer foam.

Bauer discloses a floating weir assembly for removing fluid from a vessel 12 comprising buoyancy means in the form of floatation member 18 and a fluid inlet at the top opening of weir member 20 (see Fig.5). The fluid inlet is affixed to the buoyancy means through adjustable brackets 21,23. The weir opening is positioned at a distance **H** below the liquid level **E** such that it is submerged in the fluid. Bauer discloses that the weir opening is vertically adjustable by means of elements 23 (see column 2, lines 43-50). The adjustment may be made to adjust the vertical position of the weir opening relative to the surface of the fluid. Bauer further discloses a fluid outlet at the junction of conduit 28 and an outer portion of the vessel 12.

Regarding claims 6, 22 and 41, Bauer discloses that the floatation member 18 is constructed of a light material such as cork, foam-filled fiber-glass, foamed plastics and the like (see column 2, lines 26-32). The range of optimal buoyancy of the floatation member can be found through routine experimentation.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the float of Morgan et al to comprise foam, as taught by Bauer, because foam is commonly used as a means to provide buoyancy to objects because the foam contains gas within material, thereby providing a floating structure once placed in liquid.

5. Claims 12, 32 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al, as applied to claims 7, 29 and 42 above, in view of Ayukawa et al. (JP-2003147844-A).

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Morgan et al disclose the features as described above wherein they disclose that the system is for use in a liquid-containing basin, tank or reservoir (see column 1, lines 5-10).

However, Morgan et al fail to explicitly disclose that the system may be used in rainwater detainment vessel.

Ayukawa et al. disclose a method and device for controlling drain sterilizer wherein sewage contains rainwater (see abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide rainwater in the vessel of Morgan et al's invention, as taught by Ayukawa et al. because basins and tanks are commonly used to contain at least a fraction of rainwater.

6. Claims 13, 33 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al as applied to claims 7, 17 and 42 above in view of Diggs (3,966,604).

Morgan et al disclose the features as described above wherein they disclose that the system is for use in a liquid-containing basin, tank or reservoir (see column 1, lines 5-10).

However, Morgan et al fail to explicitly disclose that the vessel is an irrigation channel and the fluid outlet communicates with an irrigation system.

Diggs discloses an apparatus for aerobic decomposition of sewage that reduces raw sewage into an effluent suitable for use on irrigation (see column 1, lines 1-10). Diggs further discloses a weir or flow-through channel 23 that effluent flows through in the process of treatment (see column 3, lines 5-18).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the weir assembly for a basin/tank of Morgan et al in a sewage treatment process for

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provision of irrigation fluid, as taught by Diggs, because sewage treatment processes as commonly used to treat fluid to the point of being non-potable, but suitable for hydrating vegetation. The Morgan et al invention is for use in liquid-containing basin, tank or reservoir, which does not preclude the containment system of Diggs.

7. Claims 14-16, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al as applied to claims 1 and 17 above.

Morgan et al disclose the features as described above. To review, Morgan et al disclose an adjustable flow floating weir assembly with buoyancy means including floats 42 and air pressure in regions 41 (see Figs.1&2). Air is a gas. The assembly comprises weir openings including openings 28 and notches 22 for fluid flow to a vessel such that at least a portion of the weir openings are submerged. The weir openings are vertically adjustable such that the submerged portion of the weir opening is controllable through vertical adjustment of portions of the assembly (see column 1, lines 60-69). Pipes 32 communicate to an exit opening to a fluid outlet (see column 3). The system does not operate on a bottle-neck principle. The rate of flow of fluid through the vessel is limited by the rate of flow of the fluid into the fluid inlet through the weir opening (see column 1, line 68- column 2, line 28). The combination of buoyancy means through the floats and buoyancy regions inherently provide a buoyancy of at least three time the weight of the system because air an continuously be supplied to the buoyancy regions. Specifically regarding claim 17, Morgan et al disclose the system comprising a weir opening comprising opening 28 and generally V-shaped notches 22 such that the V-shaped notches

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permit adjustment of the overall weir opening based on the vertical position of the assembly (see column 3, lines 20-31).

Although, Morgan et al fail to explicitly disclose that the invention comprises a method of controlling the rate of flow of fluid from a vessel, the disclosure of Morgan et al provides the basic steps required to develop a method such as the method claimed by the applicant of the present invention.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zenner (5,378,376) and Carlisle (706,526) disclose features that are pertinent to the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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